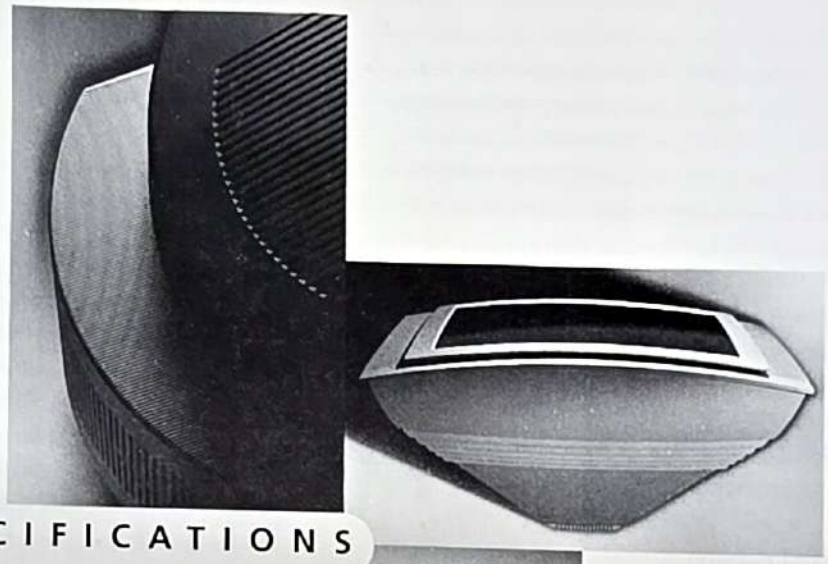


1999 SPECIFICATIONS GUIDE

LOEWE.

Introduction

Welcome to the Digital Age

Digital technology is revolutionizing the world of consumer electronics, and Loewe ("LOO-va") stands at the forefront in developing and applying the latest advances in digital audio and video technology to television. Loewe introduced its first digital television in 1987, and today, while many manufacturers are just getting started, Loewe's North American models represent the company's sixth generation of digital televisions.

Simply put, digital technology enables dramatic improvements in picture and sound quality, including filmlike, studio-quality images from virtually any video source—from traditional NTSC and satellite broadcasts to cable programs, laser discs, DVD players, VCRs, camcorders and even PC-generated computer images. Other advantages of digital technology include:

- The elimination of picture degradation associated with conventional analog televisions.
- Greater control and customization of the viewing and listening experience.
- Crystal-clear digital sound.

Loewe Digital Technology

Loewe televisions incorporate state-of-the-art digital signal processors that are managed electronically by a sophisticated internal software system. The result is a digitally controlled television chassis that generates an extremely high-resolution progressive scan picture (see the Digital Progressive Scan section). By eliminating most analog components and filters, Loewe televisions achieve consistently superior picture and sound—whether the input is analog or digital—throughout the lifetime of the product.

How Is Loewe Digital Better?

In analog televisions, processing of the video signal degrades the original studio image in a variety of ways, including deflection, scanning and beam focusing of the tube, inadequate separation of color from black and white, loss of apparent sharpness due to changes in the composition of scenes, creation of interlaced artifacts and a host of other problems. By comparison, digital processing enables the many detailed steps of recovering the video image to be orchestrated to maintain and deliver a filmlike image, regardless of the source. This not only requires each step to be digitally processed, but also allows each step to be precisely coordinated. The algorithms controlling this digital process—developed and refined by Loewe—combined with specific digital signal processing VLSI devices are integral in optimizing the performance of Loewe televisions. This makes for superior picture resolution and enhances the overall viewing experience.

Loewe Technical Features

Listed below are just a few of the many digital processes and technologies incorporated within every Loewe television, followed by a brief description of each technical feature.

- Digital progressive scan
- Digital scan velocity modulation
- Digital line interpolation
- Digital comb filter
- Digital video noise reduction
- Digital motion detection
- Automatic picture control
- Full picture-in-picture
- Digital picture formatting
- Automatic video signal detection
- Component video input
- High-performance picture tubes
- Energy-efficient standby mode
- Digital audio
- Advanced graphical user interface
- Automatic channel programming
- Automatic volume control
- Parental lock

Digital Progressive Scan

To display a picture, conventional televisions use a process called interlaced scanning, which requires two passes of the electron beam to create a single image. The first pass scans the odd lines of the picture, and the second pass scans the even lines. This interlaced method produces picture defects, including horizontal lines and flickering of static images, such as on-screen text or the lines on a sports field. With digital progressive scan, the entire picture is processed and displayed in one pass, 60 times per second—twice the speed of interlaced scanning. This is often referred to as line doubling. Though other televisions use line doubling technology, Loewe's digital progressive scan represents the state of the art, delivering superior, flicker-free images. The result is a picture that has an appearance similar in sharpness and clarity to a high-quality film image, with greater detail, better color renderings and truer skin tones. In addition, text and graphics are displayed with the same level of quality as that found in high-end computer monitors.

Digital Scan Velocity Modulation

In analog televisions, as the image changes abruptly between light and dark areas, the picture can become blurred. Digital scan velocity modulation ensures that fine picture detail is retained during these transitions by constantly monitoring the fine structure of the picture while simultaneously modifying the speed of the electron beam as it scans the picture tube. At the same time, digital processes maintain picture focus while ensuring there are no distortions of vertical and horizontal lines.

Digital Line Interpolation

All Loewe televisions allow the user to select from a variety of screen aspect ratios and zoom effects. To ensure that superior picture quality is maintained in all modes, Loewe employs sophisticated digital line interpolation. When images are enlarged or changed to fill the screen, the resolution is not only maintained, it is actually enhanced to achieve a natural and pleasing appearance, with no visible line patterns or artifacts.

Digital Comb Filter

The digital comb filter incorporated in Loewe televisions has been designed for optimal separation of the color and black-and-white signal components. This is an essential aspect of progressive scan processing, in which any residual color artifact will be magnified. The digital comb filter ensures clear and crisp delineation, even in fine picture detail.

Digital Video Noise Reduction

Loewe televisions have the ability to enhance and improve a relatively poor-quality picture, including inferior images caused by weak TV signals or worn-out videotapes. Loewe's video noise reduction technology digitally detects, adjusts and eliminates random noise to provide improved picture quality. The level of video noise reduction is user-selectable and can be switched in stages to dynamically suppress unwanted picture noise.

Digital Motion Detection

Sudden movements of objects in the picture, sweeping panorama shots or text scrolling across the screen can create blurring of images. Loewe televisions incorporate digital motion detection, which examines the last field of picture information (stored in memory), compares it with the current field and then determines whether to use the new data or repeat the old data to obtain the best image in the areas of the picture where an unacceptably blurred image would appear.

Automatic Picture Control

A distinctive feature of every Loewe television is its ability to display vivid colors, highly accurate color separations and exceptionally bright whites—all contributing to the filmlike appearance of the Loewe picture. To achieve this, Loewe employs sophisticated software that monitors the average and peak contrast and brightness levels of the progressively scanned image in relation to the picture content. The digital circuitry then optimizes the brightness and contrast to ensure a clear, crisp image with no picture blooming around brightly colored or white objects. This digital process maintains the correct color spectrum and gray levels to create a more natural picture.

Full Picture-in-Picture

With two independent tuners, Loewe televisions make it possible to watch one program while monitoring another in a second viewing window. Because the picture-in-picture (PiP) window is also progressively scanned, it retains the same high quality as the main image.

Digital Picture Formatting

Loewe's digital technology provides a high level of flexibility in viewing options, including the ability to select from a variety of aspect ratios and zoom effects to enhance the viewing experience.

- 4:3 Standard
  The standard mode for 4:3 television broadcasts.
- Panorama
  Allows 4:3 broadcasts to be stretched to virtually fill the 16:9 screen.
- Cinema
  Proportionally enlarges the 4:3 television picture to fill the 16:9 screen. This is also designed to allow letterbox movies to fill the 16:9 screen.
- External 16:9—Anamorphic Mode
  With the advent of digital video discs (DVDs), movies are becoming available in their original, widescreen aspect ratios, such as 2:1, 1.8:1, etc. In the external 16:9 mode, Loewe televisions are able to take advantage of these new formats and display them using the full screen width.
- Zoom
  Results in maximum enlargement of the 4:3 television picture on the 16:9 screen. Depending on the film format, the black bars at the top and bottom of the picture are either removed or minimized to ensure the proportionally correct reproduction of widescreen films.
- Letterbox Movie Detection
  Automatically detects when a movie is being played in the letterbox format and ensures that the proportionally correct screen size is selected for the television (16:9 models).

Automatic Video Signal Detection

When a video component is connected, the television evaluates the playback signal and automatically determines whether S-video or composite video is being used. This eliminates the need for manual switching.

Component Video Input

Loewe televisions enable a user to directly connect AV equipment that employs the component video format, such as a DVD player. This maintains the fidelity of the video signal.

High-Performance Picture Tubes

Every Loewe television features a high-performance picture tube engineered with a variety of attributes that enhance picture quality, including:

- High-gloss screen surface for increased picture sharpness.
- Dark-tinted glass for improved reproduction of black tones.
- Black matrix technology for enhanced picture contrast.
- Invar mask for improved white content.
- Reduced ion emissions.

Energy-Efficient Standby Mode

In standby mode, a Loewe television consumes approximately one watt of power, using less energy than a typical night light. This is an example of Loewe's commitment to environmental responsibility in the design and engineering of its products.

Digital Audio

Loewe televisions use new digital signal processing (DSP) technology for exceptional audio performance. Through direct digital sampling (DDS) of the modulated audio signal, Loewe televisions are able to deliver the original studio-quality audio. The digital signal processing maintains the original signal-to-noise ratio and adds no additional distortion. This produces superior stereo channel separation and CD-like sound from broadcast television, either through the television's high-quality integrated audio system or through an external audio system. In addition, enhanced sound modes create a surround sound effect from a stereo source and provide special settings for the optimal reproduction of classical music, pop music or speech.

Advanced Graphical User Interface

The digital technology used by Loewe goes beyond delivering superior picture and sound quality. It also enables a more sophisticated interface that allows the user to personalize the entire viewing experience. Developed by Sensory Science Corporation, the user interface and menu system feature distinctive 3-D graphics that make the television easy to understand and operate.

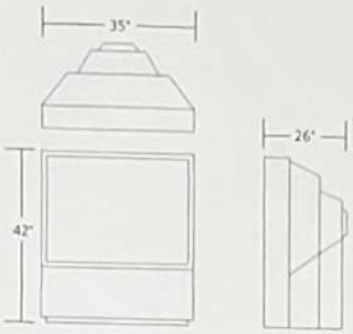
Animated step-by-step connection diagrams are provided for a variety of accessories, including VCRs, DVD players, camcorders and more. The context-sensitive help and index systems, accessed by pressing the "Info" button on the remote control, provide useful information about any feature of your Loewe television. Combined with the sophisticated yet easy-to-use remote control, the menu system virtually eliminates the need to refer to the user's manual. Other features include:

- Automatic Channel Programming
  All receivable television channels are automatically programmed and sorted in sequential order.
- Automatic Volume Control
  The television's volume is continually adjusted to ensure that it remains at a constant level and increases in volume do not occur when commercials are shown or when switching between channels. This eliminates the need to manually adjust the volume.
- Parental Lock
  The password-protected parental lock feature allows unwanted programs to be blocked, based on their source, rating or time. The parental lock uses "V-chip" technology to determine program ratings.

Ready for the HDTV Future ... Today

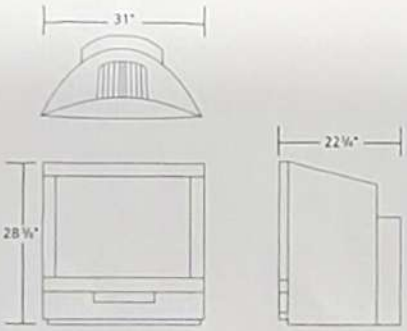
Loewe anticipates the possibilities of HDTV (high-definition television) and DTV (digital broadcast television), and the potential for personal computers and television technologies to be combined in "convergence" products. Loewe televisions are ready to embrace the future today—first, with digital progressive scan, and second, with an interface that allows direct connection to a personal computer or to the next generation of cable, satellite or terrestrial set-top boxes. In every detail, Loewe televisions are designed and engineered to provide the best possible direct-view television experience today—and tomorrow, as home theater opportunities grow and develop.

Physical Specifications



ART (ART636)

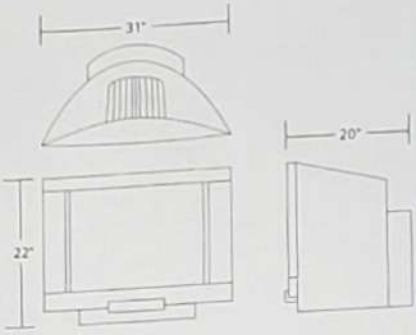
Screen size	36"
Dimensions (W x H x D)	35" x 42" x 26"
Weight (lbs.)	264
Color	Black Matte
Aspect ratio	4:3
Speakers	4
Power consumption (watts)	180



CALIDA (CAL232)

Screen size	32"
Dimensions (W x H x D)	31" x 28⅜" x 22¾"
Weight (lbs.)	118
Colors	Black Matte, Arctic Silver
Aspect ratio	4:3
Speakers	4
Power consumption (watts)	180
Optional accessory stand	Curvet™ glass rack available from Sensory Science Corporation

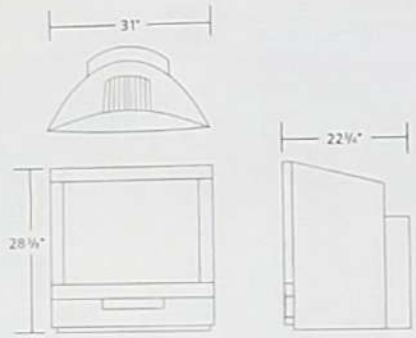
Physical Specifications



ARCADA 27" (ARC327)

Check with your dealer regarding future availability.

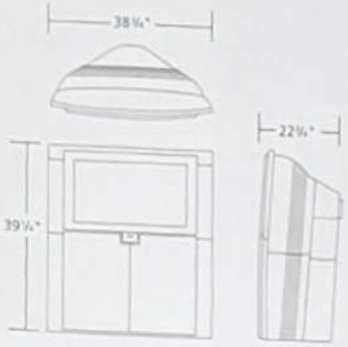
Screen size	27"
Dimensions (W x H x D)	31" x 22" x 20"
Weight (lbs.)	99
Colors	Multiple finishes available
Aspect ratio	4:3
Speakers	4
Power consumption (watts)	180
Optional accessory stand	Curvet™ glass rack available from Sensory Science Corporation



ARCADA 32" (ARC332)

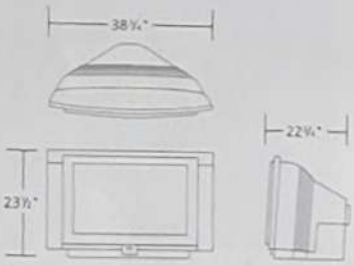
Screen size	32"
Dimensions (W x H x D)	31" x 28⅜" x 22¾"
Weight (lbs.)	118
Colors	Black Piano Finish, Midnight Blue, Champagne
Aspect ratio	4:3
Speakers	4
Power consumption (watts)	180
Optional accessory stand	Curvet™ glass rack available from Sensory Science Corporation

Physical Specifications



PLANUS consolette (PLC530)

Screen size	30"
Dimensions (W x H x D)	38¾" x 39¼" x 22¾"
Weight (lbs.)	150
Colors	Black Matte, Platinum
Aspect ratio	16:9
Speakers	8
Power consumption (watts)	180



PLANUS table (PLA530)

Screen size	30"
Dimensions (W x H x D)	38¾" x 23½" x 22¾"
Weight (lbs.)	116
Colors	Black Matte, Platinum
Aspect ratio	16:9
Speakers	6
Power consumption (watts)	180
Optional accessory stand	Curvet™ glass rack available from Sensory Science Corporation

Technical Features

Video

- Digital 480-line progressive scan
- Digital scan velocity modulation
- Digital line interpolation
- Digital comb filter
- Digital video noise reduction
- Digital motion detection
- Automatic picture control
- Full picture-in-picture
- Digital picture formatting
  - Mode switching 4:3/
  - external 16:9
  - Panorama
  - Cinema
  - External 16:9—
  - anamorphic mode
  - Zoom
  - Letterbox movie detection*

Video (continued)

- Automatic video signal detect
- Component video input
- High-performance picture tubes
  - Invar mask picture tube
  - Black matrix picture tube

Audio

- MTS digital stereo decoder
- CD-quality sound
- Concert-hall effects
- Variable audio out
- Headphones out
- Automatic volume control

Operational features

- Advanced graphical user interface
- 31-button remote control
- Automatic channel programming
- Automatic signal switch
- Parental lock (V-chip)
- PAL or SECAM video sources
- Sleep timers and reminder alarms

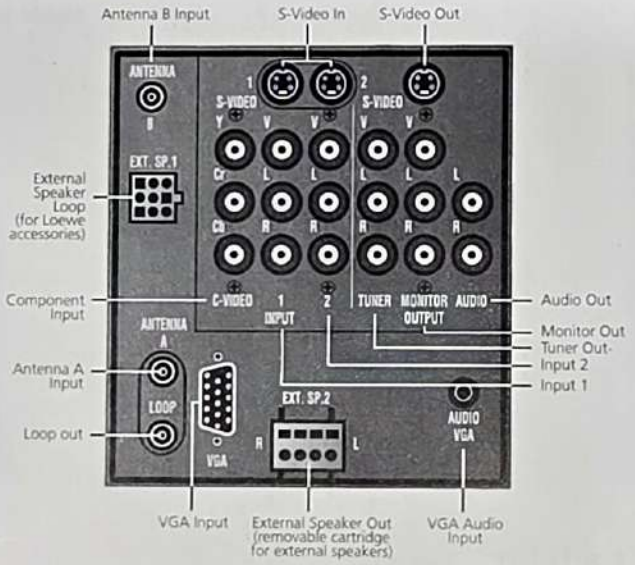
Connections

- Antenna A input
- Antenna B input
- Loop through
- Front AV inputs: S-VHS, stereo audio, headphone
- Three composite/S-video inputs
- One component video input
- VGA/RGB input (31 kHz)

*16:9 models only

Back Panel

The Loewe back panel serves as the nerve center for your home theater system, with input connections for antennas, cable boxes, satellite receivers, video games, VCRs, laser disc players, DVD players, external speakers, computers and more. Connection options include composite, S-VHS, component and VGA.



Note

Some televisions shown in this brochure may vary slightly in appearance. Descriptions and specifications are subject to change without notice. Screen sizes indicated are diagonal measurements. All stands and racks shown are optional accessories and are sold separately.

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